## **ABSTRACT**

This project, Inventory of Direct and Indirect GHG Emissions from Stationary Air Conditioning and Refrigeration Sources, with Special Emphasis on Retail Food Refrigeration and Unitary Air Conditioning, contains two parts; the first one addresses the refrigerant inventory and greenhouse gas (GHG) emissions of Californian stationary refrigeration equipment. The inventory method follows the Intergovernmental Panel on Climate Change (IPCC) guidelines 2006 and is based on activity data describing the installed base of refrigeration equipment, refrigerants in use, and emission factors depending on the activity sector. The second part addresses the energy consumption of commercial refrigeration and evaluates technical options to improve energy efficiency and their associated costs. The report evaluates the possible energy gains as well as greenhouse gas emission abatement in the commercial refrigeration sector.